

ABSTRACT

An artificial cladding grating component for use in integrated optics, includes a substrate, an optical guide core, an optical cladding formed in the substrate, the optical cladding being independent of the core and surrounding at least a portion of the core, the optical guide core and the optical cladding forming a zone of interaction in the substrate, and a grating formed in the zone of interaction and constructed and arranged to couple a guided mode of the core to a cladding mode or vice versa. The zone of interaction is configured to provide coupling variation between the guided mode of the core and the cladding mode along the direction of propagation of the modes, and the refractive index of the cladding is different from the refractive index of the substrate and lower than the refractive index of the core at least in the part of the cladding next to the core in the interaction zone.